What is clamed is:

1. A magnetic film comprising:

an easy axis in a predetermined area treated by an ion beam.

2. A magnetic film comprising:

a first area having a first easy axis with a first direction; and

a second area having a second easy axis with a second direction.

3. The magnetic film of claim 2 wherein the angle difference between the direction of the first easy axis and the direction of the second easy axis is from 60° to 90°.

4. The magnetic film of claim 2 wherein the magnetic film includes

an earth rare material which is at least selected one of Pt, Pd, Au and Tb.

5. The magnetic film of claim 2 wherein the magnetic film includes

a transition metal which is at least selected one of Co, Ni and Fe.

6. A method of manufacturing a magnetic film comprising steps of:

forming a magnetic layer on a substrate;

defining a first area and a second area of the magnetic layer;

treating the first area of the magnetic layer with an ion beam to form a first easy axis having a first direction; and

treating the second area of the magnetic layer with an ion beam in a magnetic field to form a second easy axis having a second direction.

7. The method of manufacturing a magnetic film of claim 6 wherein the magnetic layer comprises an earth rare material selected at least one of Pt, Pd, Au and Tb.

8. The method of manufacturing a magnetic film of claim 6 wherein the angle difference between the direction of the first easy axis and the direction of the second easy axis is from 60° to 90°.

9. The method of manufacturing a magnetic film of claim 6 wherein the magnetic layer comprises a transition metal selected at least one of Co, Ni and Fe.

10. The method of manufacturing a magnetic film of claim 6 wherein the ion beam comprises an inert gas selected at least one of He, Ne, Ar, Xe and Kr.

11. A method of manufacturing a magnetic film comprising steps of:

forming a magnetic layer on a substrate; and

applying an ion beam into a selected area of the magnetic layer to form a first easy axis having a first direction.

12. The method of manufacturing a magnetic film of claim 11 further comprising steps of:

applying a magnetic field to the magnetic film; and

applying an ion beam into another selected area of the magnetic layer to form a second easy axis having a second direction.

13. The method of manufacturing a magnetic film of claim 11 wherein the magnetic layer comprises a transition metal selected at least one of Co, Ni and Fe.

14. The method of manufacturing a magnetic film of claim 11 wherein the ion beam comprises an inert gas selected at least one of He, Ne, Ar, Xe and Kr.

15. A method of manufacturing a magnetic film comprising steps of:
forming a magnetic layer on a substrate; and
treating the magnetic layer with an ion beam to form an easy axis having a direction.

16. The method of manufacturing a magnetic film of claim 15 wherein the magnetic layer comprises a transition metal selected at least one of Co, Ni and Fe.

17. A method of manufacturing a magnetic film comprising steps of:
forming a magnetic layer on a substrate;
applying a magnetic field to the magnetic film; and
treating the magnetic layer with an ion beam to form an easy axis having a direction.

18. The method of manufacturing a magnetic film of claim 18 wherein the magnetic layer comprises a transition metal selected at least one of Co, Ni and Fe.

19. A method of manufacturing a magnetic film comprising steps of:
forming a magnetic layer on a substrate;
covering the magnetic layer with a first mask opening a first area;
treating the first area with an ion beam to form a first easy axis;
rotating the magnetic layer in some degree;
covering the magnetic layer with a second mask opening a second area; and
treating the second area with the ion beam to form a second easy axis.

20. A method of manufacturing a magnetic film comprising steps of:
forming a magnetic layer on a substrate;
covering the magnetic layer with a first mask opening a first area;
treating the first area with an ion beam in a magnetic field to form a first easy axis;
rotating the magnetic layer in some degree;
covering the magnetic layer with a second mask opening a second area; and
treating the second area with the ion beam in the magnetic field to form a second easy axis.